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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,827	12/02/2003	Akira Ichihashi	524941/0020	5536
26610	7590	07/19/2006	EXAMINER	
STROOCK & STROOCK & LAVAN LLP 180 MAIDEN LANE NEW YORK, NY 10038			VO, ANH T N	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/726,827

Applicant(s)

ICHIHASHI ET AL.

Examiner

Anh T.N. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/12/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

FINAL REJECTION

Claims 1-3 should be canceled in accordance with the Selection filed on 11/16/2005.
Correction is required.

Claim Rejections

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-9 are rejected under 35 USC 103 (a) as being unpatentable over in view of Ujita et al (US 6,170,939) and Shinada et al (US 6,634,738).

Ujita et al discloses in Figures 3A-6 an ink cartridge comprising:

- a liquid accommodating chamber (309) for containing a liquid;
- a hollow part (322, Figure 9A) having a liquid supplying opening (321) into which a liquid supplying needle (315, Figure 5)) of a liquid ejecting apparatus (323) is inserted, while said liquid supplying opening communicating with said liquid accommodating chamber (309);
- a supply valve (311) contained in said hollow part (322), said supply valve arranged in order to close or open said insertion opening;
- an urging member (312) for urging said supply valve (311) toward said opening, wherein said supply valve (311) comprises: a body part (306) having a circular cross-section and being substantially uniform of which a diameter is substantially the same as a diameter of said hollow

part (322); and the height of the body part (306) is shorter than the diameter of the hollow part (322);

- said body part (306) having flat bottom;
- wherein a diameter of said body part (306) is greater than a diameter of said liquid supplying needle (315) inserted from said liquid supplying opening to allow said supply valve (311) to slide in said hollow part (322);
- wherein the body part (306) has a concave part for accepting a coil spring (312) of an urging member to urge the supply valve, see Figure 8; and
- wherein the diameter of the body part (306) is larger than the needle (320).

However, Ujita et al does not disclose that a seal member contained in said hollow part, said seal member having an insertion opening being in elastic contact with an external circumference of said liquid supplying needle (315), while said liquid supplying needle is inserted to said insertion opening; a height of the valve body is higher than said diameter of said hollow part of said liquid supplying part; and a taper part formed at a first end of said body part (306) for engaging with said urging member and a distance between a taper part of a valve body.

Shinada et al. suggests in Figures 1A-1B and 4-6 an ink cartridge comprising a seal member (61) contained in said hollow part (4), said seal member (61) having an insertion opening (a hole, see column 7, lines 43-45) being in elastic contact with an external circumference of said liquid supplying needle (52), while said liquid supplying needle is inserted to said insertion opening (Figures 4-5, column 7, lines 41-45) for preventing the ink from leaking.

It would have been obvious to a person having skill in the art at the time the invention was made to employ the seal in the cartridge of Ujita as suggested by Shinada et al for the purpose of preventing the ink from leaking.

Although the height of the body part (306) of Ujita et al is shorter than the diameter of the hollow part (322) and the body part (306) does not have a tapered end; however, a skilled

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artisan realizes that the diameter and the shape of the body part is determined by the size and shape of the ink cartridge and the coil so that the body part can be attached to the coil and can tightly open or close the ink opening.

Thus, selecting the size and the shape of the body part of Ujita et al as claimed is considered to a matter of a mechanical design expedient for an engineer. It would have been obvious to a person having skill in the art at the time the invention was made to select the size and shape of the body part (306) of Ujita et al as claimed for the purpose of accommodating with the size and shape of a predetermined ink cartridge.

Response to Applicant's Arguments

The applicant argues that the body part of Shinada is not substantially uniform circular cross-section and its diameter is substantially the same as the diameter of the hollow part. The argument is persuasive. However, this limitation is suggested in the Ujita et al reference as stated above.

CONCLUSION

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo. whose telephone number is (571) 272-2262.

The fax number of this Group 2800 is (571) 273-8300.

A handwritten signature in black ink, appearing to be 'Anh T.N. Vo', with a long horizontal flourish extending to the right.

ANH T.N. VO
PRIMARY EXAMINER

July 13, 2006